

# Meeting Minutes

## East Waterway:

## Path Forward for Anthropogenic Background and ROD EPA and EWG

**Date:** July 10, 2020, 11:00 – 12:30

### Attendees:

#### EPA Region 10

Ravi Sanga  
Kira Lynch  
Doug Ammon  
Elizabeth Allen  
Erika Hoffman  
Karl Gustavson  
Pamela Daugherty  
Richard Mednick  
Silvina Fonseca  
Steve Cook  
Christine Poore  
Dean Ingemansen  
Kayla Patten (USACE)

#### East Waterway Group

Brick Spangler, Port of Seattle  
Dan Berlin, Anchor QEA  
Allison Crowley, City of Seattle  
Elizabeth Black, Port of Seattle  
Jeff Stern, King County  
Jason Hamilton, City of Seattle  
Kathy Bahnick, Port of Seattle  
Peter Rude, City of Seattle  
Sandra Kilroy, Port of Seattle  
Tom Newlon, Stoel Rives  
Debra Williston, King County  
Joanna Florer, Port of Seattle  
Kristie Elliott, King County  
Jim Bolger, King County

**Purpose:** Identify common ground to move towards timely implementation of the East Waterway remedy. Discussion of interim vs. final ROD, and anthropogenic background.

## Introduction

**Sandra Kilroy:** Thanks to all for coming. At a critical point for East Waterway (EW) cleanup. Many decades of work with lots of collaboration. Today our guiding principal is to find common ground for timely implementation of cleanup. We're currently stuck. EW is a 1.5 mile fully developed waterway. Has been listed since 1983. The Port is ready to take action. Recently EPA published recommendations from the Superfund Taskforce. It is a good process; expedites the process, reduces burden of cleanup. EW is a 'poster child' for Task Force Recommendations. Current cleanup addresses 80% of waterway; the maximum cleanup effort. Even with maximum cleanup, we can't meet state standards. Everyone [on the call] knows the cleanup and background, so we're here to discuss the interim remedy. Port's key interests: 1) cleanup that is final, 2) cleanup that provides certainty, 3) cleanup that is transparent to the public. Interim Record of Decisions (ROD) doesn't do this. Port wants final ROD with Technical Impracticability (TI) waiver. This would not change cleanup itself. Could save a few years. Aligns with Task Force Recommendations. TI waiver is legal and appropriate, and has been used by EPA at similar sites. Final remedy is a win for everyone. It gives Port certainty of cleanup actions. Helps with future deepening project (remediation needs to happen first for that). Port has strong preference for Final ROD with TI waiver, but open to other options that would meet the three key interest for the Port (as

*Draft for Discussion Purposes*

previously discussed). Today we want a clear discussion of what the options are and how to move forward.

**Brick Spangler:** To remind everyone, East Waterway Group (EWG) is three separate entities, three potentially responsible parties: Port of Seattle (signatory to the Order), King County, and City of Seattle.

## Discussion

### Agenda Items 2 & 3: EWG Concerns of Interim ROD, and Discussion of Anthropogenic Background Development

**Debra Williston:** We want information from EPA on how we get from Interim to Final. There has been some discussion with individuals, but not yet with all involved together. We want to have an understanding of it before Consent Decree for construction.

**Kira Lynch:** EPA is motivated to move forward. We want to remove all sediments above the remedial action level (RAL). The administrative process is straight forward. We have a current Administrative Order on Consent (AOC) for the remedial investigation/feasibility study (RI/FS) that could be amended. Could begin immediately to revise that to incorporate anthropogenic background study for PCBs, arsenic, and dioxins/furans (D/F). We need those numbers to get final cleanup levels. Those final numbers won't affect scope of the remedy. Cleanup levels are critical because EPA must be protective of human health and the environment. Those levels must be connected to risk-based numbers or a background. After amending AOC, then need to put together scoping documents, QAPP, etc. EPA is committed to working expeditiously with EWG. Then collect data. Then use that info to document anthropogenic background concentrations. Then put into a proposed plan (PP), then document in a final ROD. No reason we couldn't start this process while finalizing the interim PP. We'd have the data and documentation of anthropogenic background finalized and in-place before we'd need to proceed with active remediation.

**Debra:** So you're envisioning a two year process?

**Kira:** Yes, that seems doable. Schedule is dependent on what EWG can commit to. Scoping, contracting, etc. EPA will work cooperatively, and will put resources on it as needed. We will bring in the other stakeholders.

**Brick:** After development of values then put in a PP and final ROD? Is that different than the current PP process?

**Kira:** Yes. EPA has a specific process for decision documents. Will need a proposed plan before putting out final ROD. It would be much more focused. All we would need to do is finalize the sediment cleanup levels. All of the active remedy would be captured in the interim ROD.

**Brick:** That sounds good. Glad to hear that EPA intends the cleanup action to be final. Is there a way to communicate that intent in the interim ROD?

**Kira:** The interim decision documents would be clear about the RAOs that were targeted for the final cleanup. Cleanup would be driven by final RALs. All of the active portion of the remedy would be linked to performance goals associated with the RALs. Main component of remedy would be contingent on final cleanup. Any natural recovery would need to be monitored over time.

**Pete Rude:** Our concern is transparency and perception that it is called an interim action and there is more to come, particularly with public. Explain more about how the public would understand this. It is only interim for these very specific purposes. How would this be framed to give as much closure as possible?

**Kira:** In the decision documents, it is EPA's intent to be clear that there are various components of the remedy. Active remedy components of the interim and final RODs are the same. Natural recovery is part of the remedy. No matter how it is packaged, long term monitoring is required to show we can achieve the final sediment cleanup goals. Transparency is important to everyone. EPA's intent is to be clear that

the interim ROD is all of the active components of remedy that are driven by the RALs, and all of that will be completed. That will be the main component that needs to be communicated. It's a difference between the active portion of the remedy and the long-term monitoring and assessment to achieve cleanup goals. That is the part not set yet. Is everyone on the line familiar with natural recovery and how it was presented the FS?

**Jeff:** Yes that is a concern. The FS demonstrated that post-cleanup concentrations do increase. It isn't a traditional site that improves over time.

**Kira:** It doesn't seem that different. Maybe we should backup. EPA does take into account anthropogenic background when doing cleanup levels. It is natural or man-made contamination that come from places other than site-related releases. For EW and other similar sites, we take an action (e.g. dredging, residuals cover layer, amended caps, etc.). We then accept that those will equilibrate to an area-wide anthropogenic background. This will be the basis for the final cleanup levels, as opposed to a risk-based level.

**Jeff:** At most sites we pick a remedy that does some cleanup action. Then rely on natural recovery to continue reducing concentrations over time until cleanup levels are achieved. You find balance of active remediation vs. natural recovery. This is the opposite of EW. Here we're remediating almost everything and then don't get any improvement over time. It will in fact recontaminate. There is no natural recovery phase compared to most other sites.

**Kira:** We disagree with that. There are some areas we are considering monitored natural recovery (MNR). The analysis the FS shows the post remedy surface weighted average concentration (SWAC) will equilibrate with anthropogenic site-wide background. If we were working on hypothesis that active remedy won't be protective, that wouldn't even clear the main criteria for selecting a remedy. That is a critical threshold criteria.

**Jeff:** Yes there are some areas that use MNR, but the site average does go up because of incoming sources. The unanswered question is how high it will go back up. We want to ensure we're doing all the active remedy that we can. We understand if the remedy doesn't work the way it supposed to that is an issue. But we don't want a situation where we do all the active cleanup we can but we still can't get site closure.

**Debra:** Maybe some confusion is that we will do active remediation then the residuals cover layer, which is clean. But then that will be equilibrated with what is coming in.

**Kira:** That goes back to previous statement. I think we can work through this. We can work together to get defensible anthropogenic background concentrations. Incoming sediment concentrations will be taken into account for background value. Then using that as basis for determining final cleanup levels.

**Brick:** Previously mentioned there is some flexibility in determining anthropogenic background values. We want to include all factors such as the contaminated sediment that can't be remediated due to structural reasons.

**Kira:** The anthropogenic background definition says "not related to the CERCLA release in question." Regarding the contaminated sediment that will remain under structures, we have different opinions about how significant that material will be. We will have to monitor that. I have lots of experience with monitoring amended caps, and have seen lots of success. We won't be capturing that remaining sediment in the anthropogenic background because that is site related. We will be able to look at contaminant loading concentrations from areas off-site that are contributing loading. That number will be significantly higher than the natural background for Puget Sound, especially for PCBs.

**Sandra Kilroy:** Kira, you have said that components of the remedy would be similar for interim and final. The issue of having trouble meeting a background is exactly why EPA has a TI waiver mechanism. We know what cleanup action needs to be done. Instead we will be doing additional study, then doing another PP, before getting to ROD and CD. Why does EPA feel they can't use a TI waiver? Why do we have to go through this?

**Kira:** One of the items we put into Task Force recommendations was to fully utilize the interim ROD tool. It is a good mechanism to help move forward to take action when there are still questions. In the RI/FS process we never calculated anthropogenic background. Now we know what the remedial actions are, but don't have a final cleanup level identified. There is nothing we can do a TI waiver on. We don't have anything to waive it to. We don't have a final cleanup level to say "this is impracticable to achieve" since we don't have the anthropogenic background yet. We can't do an up-front TI waiver because we don't have a final cleanup level and no replacement value. We have differences of opinion about remedy's ability to meet anthropogenic background.

**Brick:** This is where we don't have common ground. We believe that to develop something achievable we needed something reviewed and approved by EPA, which we have in the FS.

**Kira:** If you look at Appendix J of the FS, the SWAC is expected to equalize to incoming sediment concentrations. We agree that this area will equilibrate to concentrations that will be representative of anthropogenic. We don't have empirical data to document that, so we need to look into that. We need a 'goal post' and then monitor to see how the remedy does.

**Brick:** When it comes to finality and transparency, you're asking we do a parallel process for anthropogenic background. If we can't agree on that, that will delay the final ROD.

**Kira:** Yes, if we say we can't come to consensus. But if we all go in committed to using good science and supporting a robust study, I'm hopeful we can come to a consensus.

**Brick:** You mentioned 'when we hit an equalized concentration.' But modeling shows that being 100 years from now. At what point do we say we've met them?

**Kira:** That is the case regardless of the remedy we select. There will be monitoring.

**Debra:** If the site is equilibrating to a number, whether that is 40, 10 or 5 years from now, is that the time when EPA would do TI waiver?

**Kira:** Yes. That is always an option and at that point we'd have the evidence to do a TI waiver. We could then transparently explain to stakeholders why a TI is justified.

**Sandra:** Will it take that long? Task Force recommendation was to get things done to let EPA use resources at other sites.

**Silvina Fonseca:** We need to understand what the data will show. 40 yrs, 10 yrs, 5 yrs? We don't know. We need some time after remediation for equilibration. We will see this in the data. Not sure when it will be. We need to rely on the data.

**Karl Gustavson:** I agree. We establish cleanup level, then track progress toward attainment of that level. Can't do that now since we don't have one. The process seems straight forward as long as we can agree on cleanup level.

**Silvina:** Understand that in the CERCLA process there is yearly data. Also have the 5-year review process which makes recommendations on next steps.

**Brick:** The timeframe discussion: the risk to the Port is the potential deepening will be held up. Is this fear unfounded?

**Kira:** I don't think that is true at all. My understanding is that the U.S. Army Corps of Engineers (USACE) decision is based on showing that you completed the active remedy, not achieving final cleanup levels.

**Erika Hoffman:** I have been reaching out to USACE, have had informal staff-level agreement of what Kira said. As long as the interim ROD takes care of active remediation, that would be acceptable. But, there is no formal position from USACE, nor formal USACE council position yet.

**Kira:** Action is the same.

**Brick:** But would USACE see that as the same? If we don't have a final cleanup, attainment of goals, would USACE move forward with deepening?

**Kira:** That is the same question whether it was done under interim or final remedy.

**Brick:** Okay. Does USACE see it that way?

**Erika:** Based on PM level at USACE, if the interim ROD covers all active remediation, it looks like USACE would not require a final ROD to continue the deepening project. Remember, the final ROD is anticipated prior to construction. USACE doesn't even get appropriations for deepening design until the cleanup remedy is implemented.

**Sandra:** It is important for the Port to stay prominent on national level. Have some important expansion plans we need to prepare for.

**Kira:** USACE won't even start on design until we've completed active remediation. There are many reasons we need to move forward with this cleanup.

**Debra:** Can you tell us if the interim ROD approach will clearly state that it is only an interim because we don't have cleanup level for these three contaminants?

**Kira:** Yes, that is our intent.

**Kristie Elliot:** We hear that EPA doesn't want to do TI now, but what if we don't achieve it in the future. You've said that a TI waiver was an option, what else is an option? More active remediation??

**Kira:** I can't speak to that right now, there is too much at play: remedy implementation, remedy success. We can't just promise that there will never be more active remediation required. I will say that we don't expect to need more, if everything performs as it is intended to.

**Brick:** When you say "address everything above the RAL" what about the sediment under the pier that we can't reach?

**Kira:** We are addressing that but with amendments not with dredging.

**Brick:** What if that doesn't meet EPA's expectations?

**Kira:** That is always a question with in situ. Performance data on other sediment sites show amendments can work well if designed properly. It is an effective tool for sediment that can't be dredged.

**Kristie:** How does EPA view SMS as and ARAR? In particular, anthropogenic background vs regional background.

**Kira:** Regarding the background portion, both MTCA and SMS background, those portions are potential ARARs. But the inputs to those calculations include many discretionary elements (e.g. statistics, sampling determinations). Because those discretionary elements aren't ARARs, EPA will apply its own methods. In this case, when developing cleanup levels we will use the same construct as SMS: look at risk-based value, if natural background is above risk-based consider that; if anthropogenic is higher we can use that. An important distinction is that because this is a Superfund site, we're using EPA procedures for calculating anthropogenic background, which would meet ARAR portions of SMS that discuss utilizing background.

### Agenda Item 3: Discussion of Anthropogenic Background Development

**Brick:** What is EPA's view of the scope?

**Kira:** We've discussed some of these already. EPA is ready to get started right away. Could start with first scope of work draft. It would give us a place to start discussions. We can get started on amending the AOC (we recently did it in 1.5 months on another project). Technical participants are similar to RI/FS: Tribes, Ecology, U.S. Coast Guard. We would first do scope of work, then determine data quality objectives (DQOs) and discuss/revise those, then work plans quality assurance plans, submit those to EPA who would coordinate with stakeholders. Timeline seems to be driven by motivation of the team. Data collection is based on plans and waterway restrictions. EPA has examples nationally of how we've done anthropogenic in the past. I have also been talking to Anchor QEA on how to do anthropogenic on Bremerton Gasworks; we recently got DQO agreement. So there are other Puget Sound examples.

**Jeff Stern:** There has already been a multiyear modeling effort, collected data for inputs, done modeling runs for almost any background situation (haven't incorporated material under the piers yet). Not sure what is left to do?

**Kira:** Modeling was not to support a background concentration, it was to support evaluation of FS alternatives. We're not looking at this to be a modeling effort. Just data collection to calculate background. We're not prepared to say what data exactly needs to be collected. Some Green River data probably. That will be the first step in the background study systemic planning.

**Jeff:** We still aren't very clear on what that means. We also need to look at data from Lower Duwamish Waterway (LDW).

**Kira:** Our understanding is that sediment coming from LDW is *de minimus*. These are the conversations we need to sit down with a technical team to have. Need to look at what we need, what we have, and what needs to be collected.

**Jeff:** The concern we have is we had a team (EPA, USACE, modelers, etc.) and we developed models. Everyone agreed to it. Assume this is the same group that would be doing this? If we try to bring in new players, then all the work done to-date will be put into question.

**Kira:** Yes. There are always going to be new players. EPA has brought in more technical people. If we have something that is technically sound and robust, it should stand up to new team members' review.

**Debra:** When we get a background level developed, if at that point modeling shows we can't reach it, is that a point that EPA would consider doing a TI waiver?

**Kira:** If it is only based on modeling? Unlikely. But we can't even start to look at that question if we don't have anthropogenic background goal post.

#### Agenda Item 4: Viability of other ROD Approaches

**Elizabeth Black:** We've looked into EPA's position that they can't do a TI waiver without a replacement value. We don't agree. We can discuss later. What about the other options? Using the modeled value in FS Appendix A?

**Kira:** The modeling done so far was for alternative comparison. The NCP requires we have a final cleanup level that is protective of human health and the environment, and if based on background this must have a technical basis. Can't just take an arbitrary modeling number that wasn't connected to protectiveness. There is uncertainty on that modeling. Models have to be evaluated from standpoint of the objective of doing the modeling initially. There is no basis for using that modeling as a cleanup level.

**Richard Mednick:** EPA is obligated to choose a cleanup level based on the NCP. EWG's argument doesn't change that. Happy to discuss that between the lawyers.

**Elizabeth B.:** Thank you that would be good; we fundamentally disagree on that.

## Path Forward

**Brick:** Notes will be developed from this meeting; EPA and EWG have been taking notes. We expect that EPA will share notes and then EWG will review. Then they will be added to the Administrative Record.

**Kira:** Correct.

**Brick:** That will be in the next week or so?

**Kira:** We will target by end of next week.

**Brick:** Next steps for this process. EWG needs to meet to discuss. We appreciate this. There was lots of good information shared. What are your next steps? Is there anything else to discuss here?

**Kira:** Nothing more. Thanks everyone. Everyone has put in a lot of effort. We want to see this move into remedial design soon. EPA is willing to work with you on the anthropogenic background calculation.

**Sandra:** Thank you. We were hoping to get working on the cleanup, not another study. We want an outcome that will get us going on the cleanup. Look forward to more discussions.

**Pete Rude:** Is the current PP date still August?

**Kira:** Yes

## Summary

- EPA's proposed path forward for the ROD is to publish an Interim ROD identifying the active cleanup requirements but without identifying cleanup levels. EPA, EWG, and the stakeholders will then work collaboratively and expeditiously to develop anthropogenic background values. EPA will then publish a Final ROD incorporating those background values, as appropriate, into the final cleanup levels.
- In determining anthropogenic background, EPA will take into account natural or man-made contamination that is not associated with site-related releases. Therefore, this will not include sediment that cannot be removed due to structural limitations (which will receive an amendment for treatment).
- EPA cannot currently utilize a TI waiver, as they don't have an established cleanup level to base it on. Following determination of a cleanup level and post-remediation monitoring, EPA may evaluate if a TI waiver is appropriate.
  - EPA and EWG council will meet to further discuss NCP requirements and use of a TI waiver.
- EPA has had staff-level discussions with USACE regarding the deepening project. The current understanding (which does not have confirmation from USACE leadership or USACE council) is that USACE will only need remedial action construction completion to move forward with the deepening project. Final achievement of cleanup levels is not expected to be required.